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10/025,932	12/26/2001	Maurico Lopez	BS01-320	6440

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EXAMINER

RAMPURIA, SATISH

ART UNIT PAPER NUMBER

2191

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,932	LOPEZ ET AL.	
	Examiner	Art Unit	
	Satish S. Rampuria	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/29/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the **RCE** received on Aug 29, 2005.
2. Claims amended by the applicant: 1, 7, 8, 13, 14, 20, and 23.
3. Claims pending in the application: 1-24.
4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Aug 29, 2005 has been entered.

Information Disclosure Statement

5. An initialed and dated copy of Applicant's IDS form 1449 filed on Aug 29, 2005 is attached to the instant Office action. The document 10/025,774 has not been considered since it is a copending application and not been published yet. Please check on the PAIR.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but they are not persuasive.

In the remarks, the Applicant has argued that:

- (i) For claims 1, 8, 14 and 20, Dasgupta is not extracting data that defines the basic structure, but instead Dasgupta already has a list available to it that defines the objects

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to be probed. Dasgupta does not define basic structure of the application, but instead, this data just reflects the operating status of objects.

Examiner's response:

- (ii) In response to Applicants argument, Dasgupta is not extracting data; however these limitations are taught by Ramraj (see page 1 of Ramraj, paragraph 11 "transaction execution data associated with the executing transaction is captured (extracted) by the monitoring function") (emphasis added). As indicated by Applicants that Dasgupta has a list available that defines the objects to be probed and which reflects the operating system status. Since, these objects as used by Dasgupta reflects the operating status, which is the base for computer system, these would be the basic objects which would also be similar to the basic structure of the application as claimed. Further, Section 6 of Dasgupta, as indicated by the Applicants, which is more pertinent to the claimed limitation. This section also states the two basic software components of the system and is used in debugging by the programmer to inspect the system on the fly without shutting down the system (see section 6, page 65). Therefore, the rejection is proper and maintained herein.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claim 9, the amendment filed on 09/16/2005 of copending Application No. 10/025,774 (hereinafter called '774). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as shown in the table below.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

<i>Instant Claim</i>	<i>'774 Claim</i>
<p>1. (Currently Amended) A system for analyzing a computer application while it is executing without terminating or interrupting the application, comprising:</p> <p>an application that is executing to be analyzed;</p> <p>an administration client;</p> <p>an object shell console executing on the administration client, the object shell console connected to the application so that it can extract information from the application that defines at least the basic internal structure of the application including at least one object component without interrupting the application or causing the application to terminate; and</p> <p>a graphical user interface presented by the object shell console for presenting at least a portion of the extracted information that defines the internal structure to the user and</p>	<p>9. (Previously Presented) A system for modifying an application in substantially real-time during execution without suspending or terminating the application comprising:</p> <p>an application server running a JAVA virtual machine on which the application executes;</p> <p>an object shell console that attaches to the application through a JAVA RMI serving as a system independent interface while it is running to obtain program data defining the underlying program structure of the application including at least one object language component;</p> <p>a graphical user interface in the object shell console that is used to assist a maintenance person in modifying the program data of the application; and</p>

allowing the user to obtain additional detailed information regarding the internal structure including values associated with the at least one object component.	a command line for accepting a command to be executed, said command when executed will cause the execution of the application to be modified without suspending or terminating the application.
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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 2, 4-6, 8, 9, and 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramraj in view of A Probe-Based Monitoring Scheme for an Object-Oriented, Distributed Operating System, published in Sep 1986 to Dasgupta (hereinafter called Dasgupta).**

Per claims 1 and 14:

Ramraj disclose:

- A system for analyzing a computer application while it is executing without terminating or interrupting the application (page 1, paragraph 7 “monitoring a transaction executing on a network computer”), comprising:

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- an application that is executing to be analyzed (page 1, paragraph 21 “simplify application... across networks, including the Internet”);
- an administration client (page 1, paragraph 7 “a network computer”);
- an object shell console executing on the administration client (page 1, paragraph 7 “transaction executing on a network computer”), the object shell console connected to the application (page 1, paragraph 7 “transaction executing on a network computer”) so that it can extract information from the application (page 1, paragraph 11 “transaction execution data associated with the executing transaction is captured (extracted) by the monitoring function”) (emphasis added) without interrupting the application or causing the application to terminate (page 1, paragraph 6 “monitoring... accomplished without interfering with the actual transaction”); and
- a graphical user interface presented by the object shell console for presenting at least a portion of the extracted information to the user and allowing the user to obtain additional detailed information (page 1, paragraph 7 “web page includes at least on block of processing code for executing a transaction... updating the web page... function for monitoring the transaction”).

Ramraj does not explicitly disclose that defines at least the basic internal structure of the application including at least one object component, and regarding the internal structure including values associated with the at least one object component, as amended.

However, Dasgupta discloses in an analogous computer system that defines at least the basic internal structure of the application including at least one object component (page 62,

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section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”), and regarding the internal structure including values associated with the at least one object component (page 62, section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of extracting information which has the internal structure which has component objects as taught by Dasgupta into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to only extract information which are needed to provide an enhance technique for debugging while the program or process is running as suggested by Dasgupta (page 65, section 6. Debugging Support).

Per claims 2 and 17:

The rejection of claim 1 is incorporated, and further, Ramraj disclose:

- wherein the extracted information includes methods invoked by the application (page 1, paragraph 10 “Invoking the monitoring code file includes capturing data associated with the execution of the transaction”).

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Per claims 4 and 15:

The rejection of claim 1 is incorporated, and further, Ramraj disclose:

- wherein the object shell console determines a number of times a selected method is invoked (page 1, paragraph 10 “transaction data... include one or more data items selected from a list consisting... start and stop time”).

Per claim 5 and 16:

The rejection of claim 1 is incorporated, and further, Ramraj disclose:

- wherein the object shell console determines a length of time required for a selected method to execute (page 1, paragraph 10 “transaction data... include one or more data items selected from a list consisting... start and stop time”).

Per claim 6:

The rejection of claim 1 is incorporated, and further, Ramraj discloses:

- a thread that connects the application to the object shell console (page 1, paragraph 9 “the applet includes at least one link to a monitoring code file”).

Per claims 8 and 13:

Ramraj disclose:

- A method for analyzing a computer application while it is executing (page 1, paragraph 7 “monitoring a transaction executing on a network computer”), comprising the steps of:

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- connecting an object shell console to an executing computer application (page 1, paragraph 7 “transaction executing on a network computer”);
- extracting information from the computer application (page 1, paragraph 11 “transaction execution data associated with the executing transaction is captured (extracted) by the monitoring function”) without interrupting or terminating the computer application (page 1, paragraph 6 “monitoring... accomplished without interfering with the actual transaction”); and
- displaying the information to a user in a graphical user interface (page 1, paragraph 7 “web page includes at least one block of processing code for executing a transaction... updating the web page... function for monitoring the transaction”).

Ramraj does not explicitly disclose defining the internal structure of the application and including at least one object component, and about the at least one object component including a value associated with the object component as amended.

However, Dasgupta discloses in an analogous computer system defining the internal structure of the application and including at least one object component (page 62, section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”), and about the at least one object component including a value associated with the object component (page 62, section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is

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well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of extracting information which has the internal structure which has component objects as taught by Dasgupta into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to only extract information which are needed to provide an enhance technique for debugging while the program or process is running as suggested by Dasgupta (page 65, section 6. Debugging Support).

Per claim 9:

The rejection of claim 8 is incorporated, and further, Ramraj discloses:

- using a thread to make the connection (page 1, paragraph 9 “the applet includes at least one link to a monitoring code file”).

Per claims 11 and 12:

The rejection of claim 8 is incorporated, and further, Ramraj disclose:

- displaying at least one class in the graphical user interface (page 1, paragraph 7 “web page includes at least one block of processing code”); and
- displaying at least one method corresponding to at least one of the at least one classes (page 1, paragraph 9 “applet includes at least one link to a monitoring code file”).

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Although, Ramraj teach display the information via web page. Ramraj is silent on displaying the information in according to a hierarchy. However, this feature deemed to be inherent to the Ramraj system, Ramraj system shows displaying information via a web page on page 1, paragraph 7 and paragraph 9. Ramraj system would in inoperative if the method is not invoked for the execution via a browser.

Per claims 18 and 19:

The rejection of claim 14 is incorporated, and further, Ramraj disclose:

- providing a list of one or more methods comprising the application in the graphical user interface (page 1, paragraph 7 “web page includes at least on block of processing code for executing a transaction... updating the web page... function for monitoring the transaction”).

Although, Ramraj teach display the information via web page. Ramraj is silent on displaying the information in according to a hierarchy. However, this feature deemed to be inherent to the Ramraj system, Ramraj system shows displaying information via a web page on page 1, paragraph 7 and paragraph 9. Ramraj system would in inoperative if the method is not invoked for the execution via a browser.

Per claims 20 and 21:

Ramraj disclose:

- A system for analyzing a computer application in real-time (page 1, paragraph 7 “monitoring a transaction executing on a network computer”), comprising:

- an application server on which one or more computer applications is executing (page 1, paragraph 21 “simplify application... across networks, including the Internet”), one of the one or more computer applications being a computer application to be analyzed (page 1, paragraph 21 “simplify application... across networks, including the Internet”);
- an administration client (page 1, paragraph 7 “a network computer”);
- an object shell console executing on the administration client (page 1, paragraph 7 “transaction executing on a network computer”) that can attach to the application to be analyzed (page 1, paragraph 7 “transaction executing on a network computer”) to extract information from the application to be analyzed (page 1, paragraph 11 “transaction execution data associated with the executing transaction is captured (extracted) by the monitoring function”); and
- a graphical user interface in which the information from the application to be analyzed is displayed to a user (page 1, paragraph 7 “web page includes at least one block of processing code for executing a transaction... updating the web page... function for monitoring the transaction”).

Ramraj does not explicitly disclose that defines at least the basic internal structure of the application including at least one object component, and defines the internal structure including object component, as amended.

However, Dasgupta discloses in an analogous computer system that defines at least the basic internal structure of the application including at least one object component (page 62, section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is

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well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”), and defines the internal structure including object component (page 62, section 4.3 System Health Monitoring using Probes “The monitor periodically probes (probe is well known debugging technique to the people of ordinary skill in the art)... components in its list... components are stored in a database... database has... structure and properties”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of extracting information which has the internal structure which has component objects as taught by Dasgupta into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to only extract information which are needed to provide an enhance technique for debugging while the program or process is running as suggested by Dasgupta (page 65, section 6. Debugging Support).

Per claim 22:

The rejection of claim 20 is incorporated, and further, Ramraj discloses:

- a thread through which the object shell is attached to the application to be analyzed (page 1, paragraph 9 “the applet includes at least one link to a monitoring code file”).

9. Claims 3, 10, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramraj in view of US Publication No. US 2002/0046273 to Lahr et al. (hereinafter called Lahr).

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Per claim 3:

The rejection of claim 1 is incorporated, and further, Ramraj does not explicitly disclose wherein the extracted information includes variables names and variable values used in the application.

However, Lahr discloses in an analogous computer system the extracted information (page 6, paragraph 62 “certain parameters... have to be extracted”) includes variables names and variable values used in the application (page 5, paragraph 50 “extracts appropriate parameters from the packet” and page 2, paragraph 25 “retrieving values for variables”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of extracting information includes variables and values as taught by Lahr into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to extract information to provide data analysis in a multi-tiered network devices as suggested by Lahr (page 2, paragraph 11).

Per claims 10 and 24:

The rejection of claim 8 and 20 respectively, is incorporated, and further, Ramraj disclose:

- number of times a selected method is invoked, an execution time of a selected method and a class (page 1, paragraph 10 “transaction data... include one or more data items selected from a list consisting... start and stop time”).

Ramraj does not explicitly disclose extracting one or more of a variable name, a variable value, an argument name, an argument value.

However, Lahr discloses in an analogous computer system the extracting one or more of a variable name (page 6, paragraph 62 “certain parameters... have to be extracted”), a variable value, an argument name, an argument value (page 5, paragraph 50 “extracts appropriate parameters from the packet” and page 2, paragraph 25 “retrieving values for variables”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of extracting information includes variables and values as taught by Lahr into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to extract information to provide data analysis in a multi-tiered network devices as suggested by Lahr (page 2, paragraph 11).

10. Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramraj in view of US Patent No. 6,687,702 to Vaitheeswaran et al. (hereinafter called Vaitheeswaran).

Per claims 7 and 23:

The rejection of claims 6 and 22 respectively, is incorporated, and further, Ramraj does not explicitly disclose the thread is created using JAVA programming language RMI.

However, Vaitheeswaran discloses in an analogous computer system the thread is created using JAVA programming language RMI (col. 10, lines 33-34 “The Java client(s) 310 invokes a RMI (remote method invocation) call” and col. 10 lines 46-48 “The entire task of invoking the JDBC call (and therefore the corresponding JDBC driver) occurs within one or more threads that are executing at the EJB server 320” also, fig. 3 and related discussion).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of creating thread using JAVA RMI as taught by Vaitheeswaran into the method of monitoring the execution of a transaction as taught by Ramraj. The modification would be obvious because of one of ordinary skill in the art would be motivated to use JAVA RMI to create thread in network communication between multi-tier database system to provide high speed communication as suggested by Vaitheeswaran (col. 5, lines 10-22).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

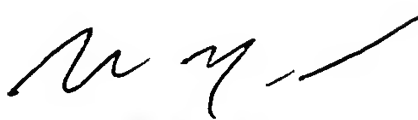
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria
Patent Examiner
Art Unit 2191
11/14/2005



WEI Y. ZHEN
PRIMARY EXAMINER